

CLAIMS

The embodiments in which an exclusive property or privilege is claimed are defined as follows:

1. A power cleaning and sanding machine comprising:
a frame; and
a plurality of floor finishing units mounted to said frame and positioned in a tandem arrangement.
2. The power cleaning and sanding machine of claim 1, wherein at least one of said plurality of floor finishing units includes an abrasive grit different from at least one other of said plurality of floor finishing units.
3. The power cleaning and sanding machine of claim 1, wherein said plurality of floor finishing units comprises sub-groups of floor finishing units, wherein at least one of said sub-groups of floor finishing units includes an abrasive grit different from at least one other of said sub-groups of floor finishing units.
4. The power cleaning and sanding machine of claim 3, wherein said plurality of floor finishing units comprise three sub-groups of floor finishing units having three individual floor finishing units each, wherein said sub-groups of floor finishing units are nested in a delta pattern, and further wherein said three individual floor finishing units of each of said three sub-groups of floor finishing

units diametrically overlap in the direction of travel of said power cleaning and sanding machine.

5. The power cleaning and sanding machine of claim 1, wherein said plurality of floor finishing units are pivotably mounted to said frame.

6. The power cleaning and sanding machine of claim 1, wherein said plurality of floor finishing units are adjustable in height with respect to said frame.

7. The power cleaning and sanding machine of claim 1, said frame comprising:

at least one strut;

at least one upright attached to said at least one strut;

at least one cross-member attached to said at least one strut; and

at least one link attached to said at least one cross-member.

8. The power cleaning and sanding machine of claim 7, wherein said at least one link is pivotably mounted to said at least one cross-member and at least one of said plurality of floor finishing units is attached to said at least one link such that said at least one of said plurality of floor finishing units is pivotable with respect to said frame.

9. The power cleaning and sanding machine of claim 8, further comprising:

said at least one link includes a slot therethrough, said at least one link being mounted to said cross-member through said slot to enable said link to be adjustable in height with respect to said frame, such that said at least one of said plurality of floor finishing units is adjustable in height with respect to said frame;

a utilities sub-frame attached to said frame, said utilities sub-frame having at least one electrical service box attached thereto; and

at least one wheeled jack attached to said at least one upright of said frame.

10. A power cleaning and sanding machine comprising:

a frame; and

a plurality of floor finishing units positioned in a tandem arrangement on said frame, wherein at least one of said plurality of floor finishing units includes an abrasive grit different from at least one other of said plurality of floor finishing units.

11. The power cleaning and sanding machine of claim 10, wherein said plurality of floor finishing units comprises sub-groups of floor finishing units, wherein at least one of said sub-groups of floor finishing units includes an abrasive grit different from at least one other of said sub-groups of floor finishing units, said sub-groups of floor finishing units are nested in a delta pattern, and said floor finishing units of said sub-groups of floor finishing units diametrically overlap in the direction of travel of said power cleaning and sanding machine.

12. A frame for use in combination with a floor finishing unit, said frame comprising:

at least one strut;

at least one upright attached to said at least one strut;

at least one cross-member attached to said at least one strut;

at least one beam attached to said at least one strut; and

at least one link attached to said at least one beam.

13. The frame of claim 12, wherein said at least one link is pivotably mounted to said at least one cross-member.

14. The frame of claim 12, wherein said at least one link includes a slot therethrough, said at least one link being mounted to said cross-member through said slot to enable said link to be adjustable in height with respect to said frame.

15. The frame of claim 12, further comprising:

a utilities sub-frame attached to said frame, said utilities sub-frame having at least one electrical service box attached thereto.

16. The frame of claim 12, further comprising:

at least one wheeled jack attached to said at least one upright of said frame.

17. A power cleaning and sanding machine comprising:

a chassis;

a housing mounted to said chassis, said housing having a mounting surface and a fastening surface substantially opposite said mounting surface, said housing at least partially defining a chamber;

a plurality of independently operated floor finishing units mounted to said mounting surface of said housing.

18. The power cleaning and sanding machine of claim 17, wherein at least one of said plurality of independently operated floor finishing units is flexibly mounted to said housing.

19. The power cleaning and sanding machine of claim 18, further comprising:

a plurality of fasteners extending through said housing and into said at least one of said plurality of independently operated floor finishing units; and

a plurality of springs interposed said plurality of fasteners and said fastening surface of said housing, whereby said at least one of said plurality of independently operated floor finishing units is flexibly mounted to said housing.

20. The power cleaning and sanding machine of claim 17, wherein at least one of said plurality of independently operated floor finishing units includes an abrasive grit different from at least one other of said plurality of independently operated floor finishing units.

21. The power cleaning and sanding machine of claim 17, wherein said housing is pivotably mounted to said chassis.

22. The power cleaning and sanding machine of claim 17, wherein said housing further includes:

a skirt mounted therearound to further define said chamber; and

a plurality of vacuum ports provided through said housing in communication with said chamber.

23. The power cleaning and sanding machine of claim 17, wherein at least a portion of said plurality of independently operated floor finishing units diametrically overlap in the direction of travel of said power cleaning and sanding machine.

24. The power cleaning and sanding machine of claim 17, wherein at least a portion of said plurality of independently operated floor finishing units are arranged in a delta pattern.

25. A power cleaning and sanding machine comprising:

a chassis;

a housing mounted to said chassis, said housing having an axis of rotation and being rotatable about said axis of rotation, said housing further having a mounting surface and a fastening surface substantially opposite said mounting surface, said housing at least partially defining a chamber;

a plurality of independently operated floor finishing units mounted to said mounting surface of said housing.

26. The power cleaning and sanding machine of claim 25, wherein at least one of said plurality of independently operated floor finishing units is flexibly mounted to said housing.

27. The power cleaning and sanding machine of claim 26, further comprising:
a plurality of fasteners extending through said housing and into said at least one of said plurality of independently operated floor finishing units; and
a plurality of springs interposed said plurality of fasteners and said fastening surface of said housing, whereby said at least one of said plurality of independently operated floor finishing units is flexibly mounted to said housing.

28. The power cleaning and sanding machine of claim 25, wherein at least one of said plurality of independently operated floor finishing units includes an abrasive grit different from at least one other of said plurality of independently operated floor finishing units.

29. The power cleaning and sanding machine of claim 25, wherein said plurality of independently operated floor finishing units rotate in a direction opposite that of said housing.

30. The power cleaning and sanding machine of claim 25, wherein said housing further includes:

a skirt mounted therearound to further define said chamber; and
a plurality of vacuum ports in communication with said chamber.

31. The power cleaning and sanding machine of claim 25, wherein said chassis comprises:

a fixed portion;
a rotatable portion rotatably mounted to said fixed portion.

32. The power cleaning and sanding machine of claim 31, further comprising means for rotating said housing about said axis of rotation.

33. The power cleaning and sanding machine of claim 31, further comprising a motor and gear assembly mounted to said fixed portion of said chassis and rotatably engaged to said rotatable portion of said chassis.

34. The power cleaning and sanding machine of claim 31, further comprising:
a power supply; and
means for electrically rotatably coupling said plurality of independently operated floor finishing units with said power supply, said means for electrically rotatably coupling being interposed said fixed and rotatable portions of said chassis.

35. The power cleaning and sanding machine of claim 31, further comprising:
a power supply; and
a slip ring interposed said fixed and rotatable portions of said chassis, said slip ring being in communication with said power supply and said plurality of independently operated floor finishing units.